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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

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of

3

Complete if Known

Application Number	10/700,971
Filing Date	November 4, 2003
First Named Inventor	Muthiah Manoharan
Art Unit	1635
Examiner Name	Sean McGarry
Attorney Docket Number	ISIS-5782

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ²	Document Number Number - Kind Code ³ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
1	U.S. 4,720,483	01-19-1988	Jansz et al.		
2	U.S. 4,757,141	07-12-1988	Fung et al.		
3	U.S. 5,082,934	01-21-1992	Saba et al.		
4	U.S. 5,151,510	09-29-1992	Stec et al.		
5	U.S. 5,424,413	06-13-1995	Hogan et al.		
6	U.S. 5,506,211	04-09-1996	Hoke et al.		
7	U.S. 5,561,043	10-01-1996	Cantor et al.		
8	U.S. 5,631,148	05-20-1997	Urdea		
9	U.S. 5,639,873	06-17-1997	Barascut et al.		
10	U.S. 5,719,271	02-17-1998	Cook et al.		
11	U.S. 5,760,202	06-02-1998	Cook et al.		
12	U.S. 5,861,493	01-19-1999	Cook et al.		
13	U.S. 5,891,684	04-06-1999	Usman et al.		
14	U.S. 5,955,443	09-21-1999	Bennett et al.		
15	U.S. 5,998,203	12-07-1999	Matulic-Adamic et al.		
16	U.S. 6,133,246	10-17-2000	McKay et al.		
17	U.S. 6,210,892 B1	04-03-2001	Bennett et al.		
18	U.S. 6,222,025 B1	04-24-2001	Cook et al.		
19	U.S. 6,262,036 B1	07-17-2001	Arnold, Jr. et al.		
20	U.S. 6,274,723 B1	08-14-2001	Nilsen		
21	U.S. 6,506,559 B1	01-14-2003	Fire et al.		
22	U.S. 6,818,759 B2	11-16-2004	Beigelmann et al.		
23	U.S. 7,022,828 B2	04-04-2006	McSwiggen		
24	U.S. 2003/0125241 A1	07-03-2003	Wissenbach et al.		
25	U.S. 2003/0139585 A1	07-24-2003	Uhlmann et al.		
26	U.S. 2003/0143732 A1	07-31-2003	Fosnaugh et al.		
27	U.S. 2003/0206887 A1	11-06-2003	Morrissey et al.		
28	U.S. 2004/0029275 A1	02-12-2004	Brown et al.		
29	U.S. 2004/0146867 A1	07-29-2004	Slatum et al.		
30	U.S. 2005/0142535 A1	06-30-2005	Damha et al.		

FOREIGN PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ²	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)				
31	EP 0 266 168 A2		05-04-1988	Amoco Corp.		
32	WO 94/02498 A1		02-03-1994	Worcester Foundation for Experimental Biology		
33	WO 96/07392 A2		03-14-1996	Hybridon, Inc.		
34	WO 02/44321 A2		06-06-2002	Max-Planck-Gesellschaft Wissenschaften E.V.		

Examiner Signature	Date Considered	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				<i>Application Number</i>	10/700,971
(Use as many sheets as necessary)				<i>Filing Date</i>	11-04-2003
				<i>First Named Inventor</i>	Muthiah Manoharan
				<i>Art Unit</i>	1635
				<i>Examiner Name</i>	Sean McGarry
Sheet 2 of 3				<i>Attorney Docket Number</i>	ISIS-5782

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	35	ALAHARI, <i>J. Pharmacology and Experimental Therapeutics</i> , 1998, 286, 419-428	T ²
	36	BEIGELMAN, <i>J. Biol Chem</i> , 1995, 270, 25702-25708	
	37	BERGER, <i>Nucleic Acids Research</i> , 1998, 26, 2473-2480	
	38	BEVILACQUA, <i>Biochemistry</i> , 1996, 35, 9983-9994	
	39	BOUTLA, <i>Current Biology</i> , 2001, 11, 1776-1780	
	40	COOK, <i>Anti-Cancer Drug Design</i> , 1991, 6, 585-607	
	41	DAMHA, <i>J. Am. Chem. Soc.</i> , 120:12976-12977	
	42	ELBASHIR, <i>EMBO J.</i> , 2001, 20, 6877-6888	
	43	HAMMOND, <i>Nature</i> , 2001, 2, 110-119	
	44	KIMURA-HARADA, <i>FEBS Lett.</i> , 1971, 13, 335-338;	
	45	KOIZUMI, <i>Nucleic Acids Research</i> , 1989, 17, 7059-7071	
	46	KUIMELIS, <i>Nucleic Acids Res.</i> 1994, 22, 1429-1436	
	47	LESNIK, <i>Biochemistry</i> , 1995, 34, 10807-10815	
	48	PARRISH, <i>Molecular Cell</i> , 2000, 6, 1077-1087	
	49	PORTA, <i>Biotechnology</i> , 1995, 13, 161-164	

Examiner Signature	Date Considered
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	50	SHUMAN, <i>J. Biol Chem</i> , 1993, 268, 18943-18950		
	51	TOSQUELLAS, <i>Nucleic Acids Research</i> , 1998, 26, 2069-2074		
	52	TRACEWELL, <i>Toxicology and Applied Pharmacology</i> , 1995, 135, 179-184		
	53	TUSCHL, <i>Molecular Interventions</i> , 2002, 2, 158-167		
	54	VERONESE, <i>Il Farmaco</i> , 1999, 54, 497-516		
	55	WILDS, <i>Nucleic Acids Res.</i> , 2000, 28, 3625-3635		
	56	WU, <i>J. Biol. Chem</i> , 1998, 273, 2532-2542		
	57	YU, <i>RNA</i> , 1997, 324-331		
	58	YU, <i>Bioorganic and Medicinal Chemistry</i> , 1996, 4, 1685-1692		
	59	Table listing related applications and office actions and rejections from those related applications		

Examiner Signature	/Sean McGarry/	Date Considered	05/27/2008
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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